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PAINT APPLICATOR

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1 Claim. (Cl. 15—248)

This invention relates to paint applicators and more particularly to paint applicators comprising a cylindrical roller carrying peripherally thereon a paint retaining and distributing means whereby paint may be applied to wall surfaces and the like upon manipulation of the roller thereover.

Briefly the paint applicator according to the present invention comprises a handle having a roller journaled thereon for rotation on an axis transversly of the handle. The roller comprises in one form of the invention, a core having secured to the periphery thereof a mass of short, soft threads or yarn resembling thrums or tufts to enhance the paint retention qualities of the applicator roller, thereby enabling the roller to retain a desired quantity of paint and of effecting an even distribution of the paint upon the surface. Cooperating with the roller applicator of this type are facilities and instrumentalities which render the applicator more effective. Such instrumentalities include a paint receptacle containing a yieldable expresser plate defined herein as a plate for controlling the paint content of the roller by effectuating the distribution of paint on the roller and facilitating the removal of excessive quantities of paint from said roller, and an applicator guard.

A salient object of the invention, therefore, is to provide a paint applicator which is efficient, effective and economical.

The foregoing and other objects and features of the invention will appear from the following description when taken in conjunction with the accompanying drawings, in which

Fig. 1 is an elevational view, partly in section, of the paint applicator according to the invention;

Fig. 2 is a view similar to Fig. 1 illustrating the paint applicator arrangement in another condition of operation;

Fig. 3 is a view illustrating the manner of operation of the paint applicator;

Fig. 4 is a perspective view of the paint applicator; and

Fig. 5 is a perspective view of the paint receptacle showing the expresser plate.

Having reference to the accompanying drawings wherein like reference characters indicate like parts throughout the several views, the paint applicator arrangement according to the present invention comprises, as illustrated in Figs. 1 and 2, a paint receptacle **11**, a yieldable expresser plate **12**, a splash plate **13** and an applicator **14**. The paint receptacle **11** is a rectangular pan having a beaded edge **15**. The splash plate **13** is provided with spring clips **16** secured thereto (as for example, by welding) which are adapted to be clipped over the beaded edge **15** of the receptacle **11**.

The expresser plate **12** comprises a latticed plate member **17** which in the present embodiment consists of a portion of expanded metal welded to a frame **18** of rectangular conformation adapted to fit relatively snug into the receptacle **11**. Provided at each corner of the expresser plate **12** is a retraction or compressor spring **19**, which in the present form of the invention simulates the

frustum of a truncated cone with the small upper end of the spring **19** hooked securely onto the reverted end of a supporting bar **21** welded to the plate **17**. With this construction the expresser plate **12** is supported on the large diameter lower ends of the compressor springs **19**, thus giving a substantial support to the expresser plate **12** while at the same time providing greater resiliency.

The applicator **14** comprises a handle **21** to which are rigidly secured a pair of Z-shaped brackets **22**, each consisting of spaced generally parallel legs interconnected by a web portion arranged normal to said legs. Between the free-ends or legs of brackets **22** is supported or journaled a paint roller **23**. Roller **23** comprises in one form of the invention a core **24** having secured or tied to the periphery thereof in any well known manner masses or tufts of short, soft threads or yarn resembling thrums of the order of two to three inches in length. Of course, it is understood that the invention is not limited to any particular length of strands.

The softness and yieldability of the fibers or strands composing the roller serve to enhance the paint retention qualities of the applicator roller **23**, thereby enabling the roller to retain a desired quantity of paint and of effecting an even distribution of paint upon the surface, particularly upon such uneven surfaces as wire fences, corrugated walls etc. In another form of applicator roller, the strands or tufts may be secured to a sleeve which may be mounted on the core **24** thus lending the rollers to ready interchangeability. Of course, instead of the yarn or thread type strands, the roller **23** may comprise any of the well known forms of lamb's wool rollers.

Riveted to the web portions of the brackets **22** is an applicator guard comprising an arcuate plate **25**. A rectangular frame **26** cooperating with the rolled over ends of the plate **25** serves to provide rigidity to the plate **25**. Guard **25** thus functions as an interceptor member, to thereby intercept and collect any excess paint that may spatter during the paint application.

In the practice of the present invention the receptacle **11** is filled with paint up to a point or level **30** (Fig. 1) a short distance below the expresser plate **12** when the compressor springs are in relaxed, normal or extended condition. To supply paint to roller **23**, the applicator **14** is manipulated at the position substantially as shown in Figs. 1 and 2. Pressure is then manually applied to the expresser plate **12** through the applicator **14** to compress the springs **19** and thereby depress the expresser plate **12** below the surface **30** of the paint as shown in Fig. 2. A rolling action or motion is then imparted to the roller **23** to thus collect paint thereon, after which the manual pressure on the applicator **14** and the expresser plate is released, whereupon the compression springs **19** are relaxed to permit their becoming extended to raise the expresser plate **12** above the level **30** of the paint supply in the receptacle **11**. To remove the excess paint from the roller **23**, the roller **23** is rolled back and forth along the expresser plate **12**, applying only so much pressure to the applicator **14** as is deemed necessary to obtain or retain the desired amount of paint in the roller **23**.

In the specific embodiment of the invention shown, having reference to Fig. 4, the core **24** is provided with a plurality of circumferential grooves **8**, which are preferably relatively deep to enhance the retentivity of the strands of yarn **9**. A taut wire **10** is utilized to securely retain the numerous U-shaped strands **9**. The grooves **8** are preferably of such width as to require a force fit thereinto of the wire **10** and strands **9**. As mentioned hereinbefore, best results are obtained when the strands **9** are of a length as to measure 3 to 3½ inches from the peripheral surface of the core **24**, which is of the order of 2½ to 3 inches in diameter. The grooves **8** are about five-eights inch deep. It is, of course, realized that these